2012 WNV Season Activity for Utah

Graph 1 represents human and mosquito pool positivity over time. The first activity for 2012 was detected in both mosquitoes and one human during the week of June 30, 2012. Utah has had its first human fatality with an onset the last week of September.

(Graph 1)

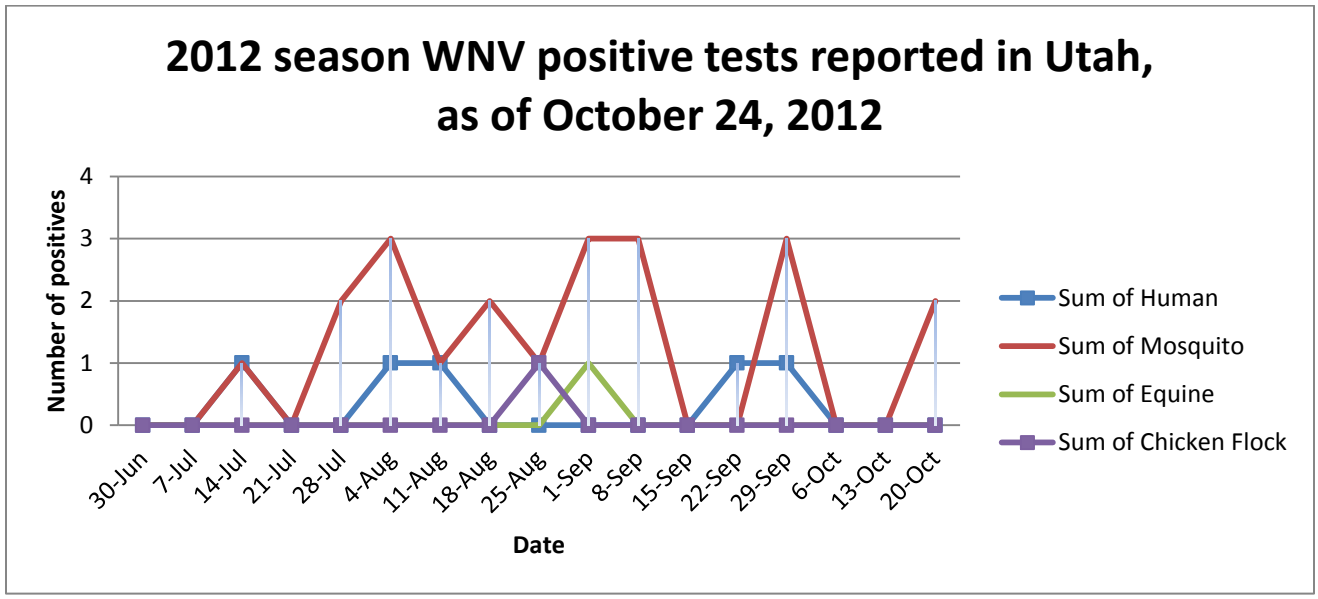


Table 1 compares Utah to surrounding states. Table 2 compares Utah to several high incidence states. Although many states are seeing increased activity, Utah has experienced 5 human cases with 1 fatality.

(Table 1)

Utah in comparison to surrounding states, as reported to CDC ArboNet, as of October 23, 2012,

	Neuroinvasive disease cases		Non-neuroinvasive disease cases		Total cases		Deaths	
State	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years
Arizona	61	0.94	33	0.51	94	1.45	3	0.05
Colorado	59	1.15	68	1.33	127	2.48	3	0.06
Idaho	4	0.25	11	0.69	15	0.95	0	0.00
Montana	0	0.00	5	0.50	5	0.50	0	0.00
New Mexico	20	0.96	18	0.86	38	1.82	1	0.05
Utah	3	0.11	2	0.07	5	0.18	1	0.04
Wyoming	3	0.53	4	0.70	7	1.23	0	0.00

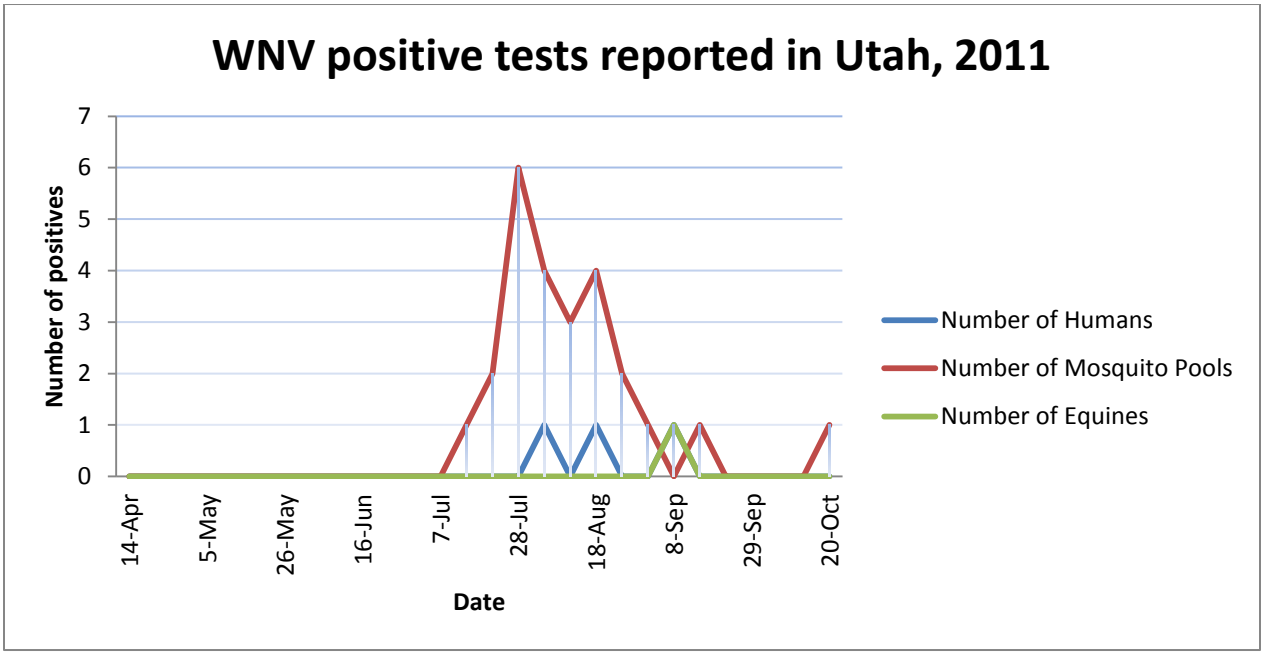
(Table 2)

Utah in comparison to high case-count states, as reported to CDC ArboNet, as of October 23, 2012								
	Neuroinvasive disease cases		Non-neuroinvasive disease cases		Total cases		Deaths	
State	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years	Case Count	Rate per 100,000 person years
Mississippi	97	3.26	136	4.57	233	7.82	5	0.17
Oklahoma	97	2.56	81	2.14	178	4.69	12	0.32
South Dakota	61	7.40	142	17.23	203	24.63	3	0.36
Texas	743	2.89	885	3.45	1628	6.34	74	0.29
Utah	3	0.11	2	0.07	5	0.18	1	0.04

Historical Perspective

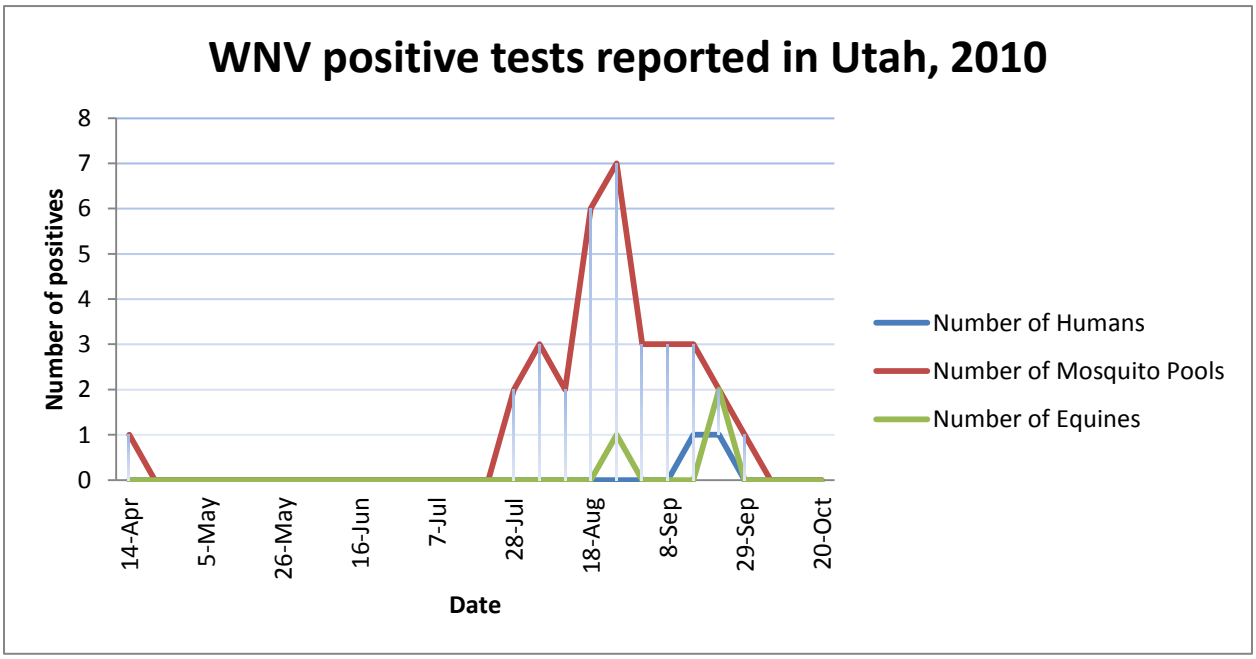
Graph 2 represents the total number of positives (human, mosquito pool, and equine) through time for the 2011 season.

(Graph 2)



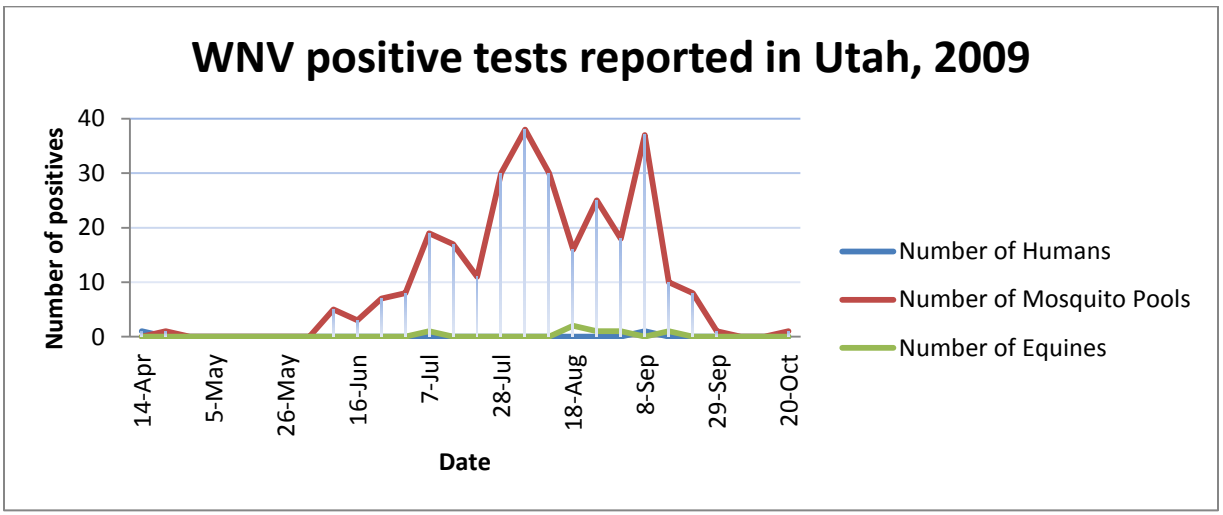
Graph 3 represents the total number of positives (human, mosquito pool, and equine) through time for the 2010 season. Because of RAMP testing from previous years, it was determined that only RT-PCR confirmed cases would be counted for surveillance purposes.

(Graph 3)



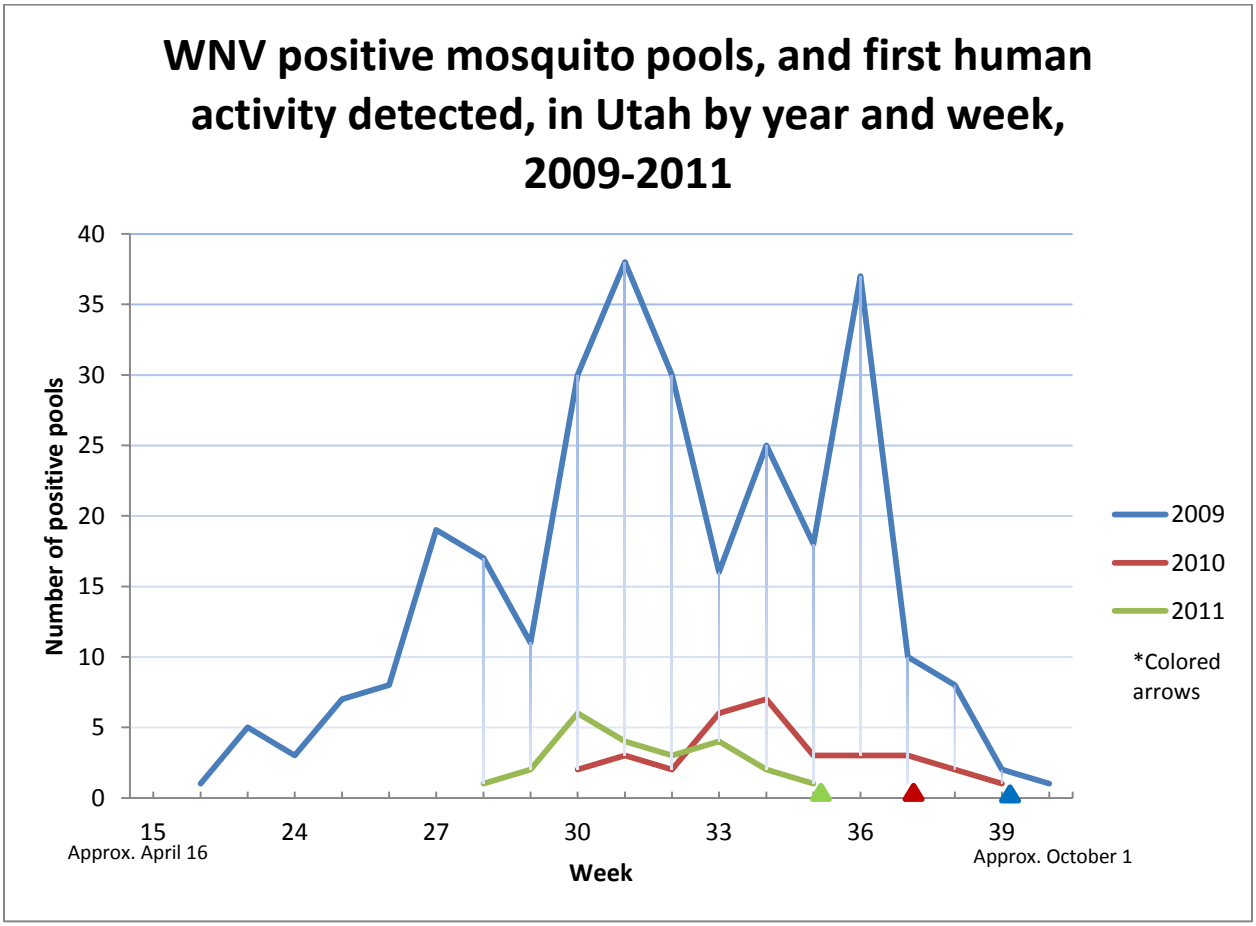
Graph 4 represents the total number of positives (human, mosquito pool, and equine) through time for the 2009 season. Mosquito numbers were extremely high in 2009 due to many of the Mosquito Abatement Districts (MAD) utilizing in-house RAMP testing. It was determined by the end of the season that the RAMP tests were not giving accurate results, thus determining for future years that mosquito pool positives must be confirmed by RT-PCR.

(Graph 4)



Graph 5 represents total mosquito pool activity for 2009-2011 seasons, along with a notation of when the first human case was detected each year. Once again, mosquito pool activity was abnormally high during the 2009 season due to MAD conducting in-house RAMP testing that was later determined to not be as accurate as RT-PCR testing. Due to temperature differences in regions of Utah, some regions of the state had the majority of positive mosquito pools. This graph groups all positive mosquito pools together vs. by district.

(Graph 5)



**Colored arrows indicate when the first human activity was detected in each corresponding year. In 2009, this was on October 1 (positives were delayed because testing had to be outsourced due to technical issues at USLPH); in 2010, this was September 23; and in 2011, the first human case was detected on September 7.*

Graph 6 shows the total number of human cases of WNV reported each year since the first human case of WNV was identified in Utah in 2003.

(Graph 6)